The airport of the future: Central link of intermodal transport?

INO WORKSHOP
Bretigny, 9 December 2004
Why study intermodality?

- Forecasts of important traffic growth for the years to come
  - Congestion problems
  - Environmental constraints
- European Commission solution: developing intermodal transports

What is intermodality?
How is it developed today?
What are the perspectives of intermodality?
What is the role of airport intermodality in the airport of the future?
What is airport intermodality?

Intermodality:
- use of several transport modes in one trip
- coordination of the transport modes

Two types of airport intermodality:
- Airport access to the city centre
- Integration of the airport in the regional or national network of other transport modes
Objectives of the study

- Producing a state of the art of the current airport intermodality situation
- Building European scenarios of transport network evolution at a 15-20 years time horizon
- Determining what could be the role of intermodal transport in the airport of the future for the cases of Portugal and France
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Scenarios layout

1. World economy 
   - Oil prices 
   - World geopolitics 

2. Development of new Technologies outside transport 
   - Freight transport demand 
   - Passenger demand on business markets 

3. Transport policies 
   - Transport Infrastructure development 
   - Environmental and sustainable development concerns 

4. Passenger demand on leisure markets 

5. Operators’ strategies 
   - Transport technology 

6. Multimodal cooperation 
   - Multimodal competition 
   - Unimodal competition 

7. Traffic 
   - Congestion 

Legend: 
A → B: Changes in factor A impact on factor B 

- Key factor
- Resulting factor

LEVEL OF AIRPORT INTERMODALITY
Current and future infrastructure in France

Current intermodal infrastructure:
- Two airports connected to HST: Paris CDG, Lyon Saint Exupery airport Future
- Two existing rail access: RER B at Paris CDG, Orlyval at Paris Orly

Future possible intermodal infrastructure:
- Airport access: CDG Express, LESLYS
- HST rail links to airports: TGV Est, TGV ouest, TGV Toulouse-Bordeaux, TGV Interconnection station at Orly, TGV Rhin-Rhone, TGV PACA, Freight express TGV
Intermodality in France today...

- Despite intermodal infrastructure, few intermodal agreements today

- Still fewer (short haul) air routes abandoned due to intermodal agreements or competition
  - Only the Brussels-Paris route

*Similar situation for “core” European countries*
... And tomorrow

New intermodal infrastructures could not be sufficient for developing airport intermodality

Incentives should depend on:

- Airport congestion level
- Unimodal competition level
- Multimodal competition level
- Transport policies at European/national level
Current and future infrastructure in Portugal

Current infrastructure:
- 3 main airports: Lisbon, Porto, Faro
- Old rail infrastructure not connected with airports

Planned future infrastructure development:
- HST Porto airport-Vigo
- HST Lisbon «airport»-Porto airport
- HST Lisbon-Madrid
- New Lisbon airport
For the future in Portugal:
First, infrastructure…

- As a base for intermodal development intermodal infrastructure has to be built

- This will most probably happen whatever the economic scenarios considered in the study
  - Priority projects for economic development

Similar situation for eastern European countries
... Then intermodality

- Intermodality level will depend on market conditions
  - For very short haul domestic connections (Lisbon-Porto) abandon of air routes and intermodal agreements for feeding airports
  - Higher if high level of congestion at airports

- Competition between air and rail on short haul connections (between Portugal and Spain)
Airport intermodality: a solution?

Future development of airport intermodality should depend on:
- Intermodal infrastructure but not only
- Market conditions
- Capacity constraints
- Political factors

Impact of intermodality on air traffic:
- Few examples so far

On what conditions can airport intermodality be a solution to air traffic congestion?
Proposed following study

- Study what could be the conditions bringing about the development of airport intermodality
- Study under which conditions airport intermodality leads to redistribution of air traffic
  - Economic analysis of market conditions
  - Identification of economic instruments and political measures
  - Analysis of their impacts on airport intermodality
- Strategic Guidelines for Intermodal Development
And in parallel...

- Development of indicators of airport intermodality
- Databank on intermodal facilities of some European airports
- Geographic web interface showing for each airport current intermodality level
- Display of impacts of intermodality improvements on airport catchments area